In the claims:

1. (Original) A process for the preparation of a compound of the formula I:

$$[L-R^1_m-R^4]_b$$

wherein

is an insoluble solid support selected from the group consisting of: poly(styrene-divinylbenzene), macroreticular poly(styrene-divinylbenzene), polystyrene which is radiation grafted to polypropylene, polystyrene which is radiation grafted to poly(tetrafluoroethylene), and polystyrene which is radiation grafted to poly(ethylene-tetrafluoroethylene) wherein the insoluble solid support is in a shape selected from a bead, a tube, a rod, a ring, a disk, or a well; L is -CH₂-, -C(CH₃)₂-, -CH(CH₃)-, -(CH₂)_nCH(CN)-, -(CH₂)_nCH(CO₂Me)-, -(CH₂)_nCH(Ph)-, -(CH₂)_nC(CH₃, Ph)-, -CH(CH₂CH₂Ph)-, or

n is zero or an integer from 1 to 5; m is zero or an integer from 1 to 100;

b is mMol content of initiator or solid-supported polymer per gram of insoluble solid support and is about 0.1 to about 5.0 mMol per gram; R¹ is selected from:

wherein

X is H, F, (CH₂)_nCl, (CH₂)_nBr, (CH₂)_nI, B(OH) ₂, (CH₂)_nCH=CH₂, NCO, CH₂NCO, CH(CH₃)NCO, C(CH₃) ₂NCO, CO₂Me, CO₂Et, CO₂ (t-Bu), CO₂H, COC1, CO₂CH(CF₃) ₂, CO₂Ph, CO₂(pentafluorophenyl), CO₂ (pentachlorophenyl), CO₂ (N-succinimidyl), C(OMe)₃, C(OEt)₃, (CH₂)_nOH, (CH₂)_nCH(OH)CH₂OH, (CH₂)_nSH, CH₂NHCH₂CH₂SH, (CH₂)_nNHC(=S)NH₂, (CH₂)_nNH₂, (CH₂)_nN(Me)₂, (CH₂)_nN(Et)₂, (CH₂)_n (iPr)₂, CH(CH₃)NH₂, C(CH₃) ₂NH₂, CH₂NHCH₂CH₂NH₂, CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHCH₂CH₂NHC

 $(CH_2)_nSi(Et)_2Cl, (CH_2)_nSi(i-Pr)_2Cl, (CH_2)_nSi(tBu)_2Cl, (CH_2)_nSi(Ph)_2Cl, (CH_2)_nSi(tBu)(Ph)Cl, P(Ph)_2, P(o-tolyl)_2,$

$$(CH_2)_nO$$
 CHO
 $(CH_2)_nO$
 CHO
 $(CH_2)_nO$
 CHO
 $(CH_2)_nO$
 CHO
 $(CH_2)_nO$
 CH_2OH

wherein n is zero or an integer from 1 to 5;

Y is H, C1, Br, F, OH, or OMe;

Z is NCO, CO₂Me, CO₂Et, CO₂(i-Pr), CO₂(n-Bu), CO₂(t-Bu), CN, CO₂H, COC1, CO₂CH(CF₃) ₂, CO₂ (pentafluorophenyl), CO₂(pentachlorophenyl), CO₂Ph, CO₂(N—succinimidyl), C(OMe) ₃, C(OEt) ₂, CON(OCH₃)CH₃, CHO, CH₂OH, or C(CH₃) ₂OH; and

R⁴ is

which comprises the step of microwave irradiating a mixture comprising a compound of the formula II

$$[L-R^4]_b$$

and a compound III selected from:

2. (Original) The process according to Claim 1 wherein R⁴ is

3. (Original) A process for the preparation of a compound of the formula IV:

$$[L-[(R^1)_w-R^2)_p]_m-R^4]_b$$
IV

wherein

is an insoluble solid support selected from the group consisting of:

poly(styrene-divinylbenzene), macroreticular poly(styrene-divinylbenzene), polystyrene which is radiation grafted to polypropylene, polystyrene which is radiation grafted to polyethylene, polystyrene which is radiation grafted to poly(tetrafluoroethylene), and polystyrene which is radiation grafted to poly

(ethylene-tetrafluoroethylene) wherein the insoluble solid support is in a shape selected from a bead, a tube, a rod, a ring, a disk, or a well; L is $-CH_2$ -, $-C(CH_3)_2$ -,

-CH(CH₃)-, -(CH₂)_nCH(CN)-, -(CH₂) _nCH(C0₂Me)-, -(CH₂)_nCH(Ph)-, -(CH₂)_nC(CH₃, Ph)-, -CH(CH₂CH₂Ph)-, or

n is zero or an integer from 1 to 5; m is zero or an integer from 1 to 100; w is an integer from 1 to 10; p is zero or an integer from 1 to 10;

b is mMol content of initiator or solid-supported polymer per gram of insoluble solid support and is about 0.1 to about 5.0 mMol per gram;

R¹ and R² are each independently the same or different and are selected from

wherein

 $_2$ Cl, (CH₂) $_n$ Si(i-Pr) $_2$ Cl, (CH₂) $_n$ Si(tBu) $_2$ Cl, (CH₂) $_n$ Si(Ph) $_2$ Cl, (CH₂) $_n$ Si(tBu)(Ph)Cl, P(Ph) $_2$, P(o-tolyl) $_2$,

$$(CH_2)_nO$$
 \longrightarrow CHO $(CH_2)_nO$ \longrightarrow CHO $(CH_2)_nO$ \longrightarrow CH_2OH

wherein n is zero or an integer from 1 to 5;

Y is H, C1, Br, F, OH, or OMe;

Z is NCO, CO₂Me, CO₂Et, CO₂ (i-Pr), CO₂(n-Bu), CO₂(t-Bu), CN, CO₂H, COC1, CO₂CH(CF₃) $_2$, CO₂(pentafluorophenyl), CO₂(pentachlorophenyl), CO₂Ph, CO₂(N-succinimidyl), C(OMe)₃, C(OEt) $_2$, CON(OCH₃)CH₃, CHO, CH₂OH, or C(CH₃) $_2$ OH; and R⁴ is

which comprises the step of microwave irradiating a mixture comprising a compound of the formula II

a compound III selected from:

and a compound V selected from:

4. (Original) The process according to Claim 3 wherein R⁴ is

5. (Original) A process for the preparation of a compound of the formula VI:

$$[L-(R^1-R^2)_m-R^4]_b$$

VI

wherein

is an insoluble solid support selected from the group consisting of: poly(styrene-divinylbenzene), macroreticular poly(styrene-divinylbenzene), polystyrene which is radiation grafted to polypropylene, polystyrene which is radiation grafted to polyethylene, polystyrene which is radiation grafted to poly(tetrafluoroethylene), and polystyrene which is radiation grafted to poly(ethylene-tetrafluoroethylene) wherein the insoluble solid support is in a shape selected from a bead, a tube, a rod, a ring, a disk, or a well; L is -CH₂-, -C(CH₃)₂-, -CH(CH₃)-, -(CH₂)_nCH(CN)-, -(CH₂)_nCH(CO₂Me)-, -(CH₂)_nCH(Ph)-, -(CH₂)_nC(CH₃, Ph)-, -CH(CH₂CH₂Ph)-, or

n is zero or an integer from 1 to 5; m is zero or an integer from 1 to 100; w is an integer from 1 to 10; p is zero or an integer from 1 to 10;

b is mMol content of initiator or solid-supported polymer per gram of insoluble solid support and is about 0.1 to about 5.0 mMol per gram;

R¹ is selected from

R² is selected from

wherein

X is H, F, (CH₂)_nCl, (CH₂)_nBr, (CH₂)_nI, B(OH)₂, (CH₂)_nCH=CH₂, NCO, CH₂NCO, CH(CH₃)NCO, C(CH₃)₂NCO, CO₂Me, CO₂Et, CO₂(t-Bu), CO₂H, COC1, CO₂CH(CF₃)₂, CO₂Ph, CO₂(pentafluorophenyl), CO₂(pentachlorophenyl), CO₂(N-succinimidyl), C(OMe)₃, C(OEt)₃, (CH₂)_nOH, (CH₂)_nCH(OH)CH₂OH, (CH₂)_nSH, CH₂NHCH₂CH₂SH,

(CH₂)_nNHC(=S)NH₂, (CH₂)_nNH₂, (CH₂)_nN(Me)₂, (CH₂)_nN(Et)₂, (CH₂)_n (iPr)₂, CH(CH₃)NH₂, C(CH₃)₂NH₂, CH₂NHCH₂CH₂NH₂, CH₂NHCH₂CH₂NHCH₂CH₂NHC₂CH₂NHC₂CH₂NHC₂CH₂NHC₂CH₂NHC₂CH₂NHC₂CH₂NHC₂CH₂NHC₂CH₂CH₂NH₂)₂, CH₂N(CH₂CH₂OH)₂, (CH₂)_n(morpholin-4-y1), (CH₂)_n(piperidin-1-yl), (CH₂)_n(4-methypiperazin-1-yl), N(S0₂CF3)₂, (CH₂)_nCHO, (CH₂)_nSi(Me)₂H, (CH₂)_nSi(Et)₂H, (CH₂)₂Si(iPr)₂H, (CH₂)_nSi(tBu)₂H, (CH₂)_nSi(Ph)₂H, (CH₂)_nSi(Ph)₁CH₂CH, (CH₂)_nSi(Me)₂C1, (CH₂)_nSi(Et)₂Cl, (CH₂)_nSi(i-Pr)₂Cl, (CH₂)_nSi(tBu)₂Cl, (CH₂)_nSi(Ph)₂Cl, (CH₂)_nSi(tBu)(Ph)Cl, P(Ph)₂, P(o-tolyl)₂,

$$(CH_2)_nO$$
 — CHO $(CH_2)_nO$ — CHO $(CH_2)_nO$ — CHO $(CH_2)_nO$ — CH_2OH

wherein n is zero or an integer from 1 to 5;

- Y is H, C1, Br, F, OH, or OMe;
- Z is NCO, CO₂Me, CO₂Et, CO₂ (i-Pr), CO₂(n-Bu), CO₂(t-Bu), CN, CO₂H, COC1, CO₂CH(CF₃)₂, CO₂(pentafluorophenyl), CO₂(pentachlorophenyl), CO₂Ph, CO₂(N-succinimidyl), C(OMe)₃, C(OEt)₂, CON(OCH₃)CH₃, CHO, CH₂OH, or C(CH₃)₂OH; and R⁴ is

which comprises the step of microwave irradiating a mixture comprising a compound of the formula II

a compound VII selected from:

and a compound VIII selected from:

wherein the ratio of the compound VII and the compound VIII is about 2:1.

6. (Original) The process according to Claim 5 wherein R⁴ is

7. (Currently amended) The A compound according to Claim 13 which is

wherein is a polystyrene resin, m is from 1 to 100 and the bromine content is from about 4 to about 6 mmol/gram of resin.

8. (Currently amended) The \underline{A} compound according to Claim 13 which is selected from:

wherein is a polystyrene resin, m is from 1 to 100 and the chlorine content is from about 5 to about 7 mmol/gram of resin;

wherein is a polystyrene resin, m is from 1 to 100 and the pyridyl content is from about 5 to about 7 mmol/gram of resin;

wherein is a polystyrene resin, m is from 1 to 100, -NR^aR^b is selected from diethylamino, diisopropylamino, piperidinyl, morpholino and piperazinyl and the amine content is from about 4 to about 7 mmol/gram of resin;

wherein is a polystyrene resin, m is from 1 to 100, and the amine content is from about 3 to about 6 mmol/gram of resin; and

wherein is a polystyrene resin, m is from 1 to 100, and the isocyanate content is from about 1 to about 4 mmol/gram of resin.

9. (Currently amended) The compound according to Claim $\frac{13}{8}$ which is

wherein is a polystyrene resin, m is from 1 to 100 and the pyridyl content is from about 5 to about 7 mmol/gram of resin.

10. (Currently amended) The compound according to Claim 13 8 which is

wherein is a polystyrene resin, m is from 1 to 100, -NR^aR^b is selected from diethylamino, diisopropylamino, piperidinyl, morpholino and piperazinyl and the amine content is from about 4 to about 7 mmol/gram of resin.

11. (Currently amended) The compound according to Claim 13 8 which is

wherein is a polystyrene resin, m is from 1 to 100, and the amine content is from about 3 to about 6 mmol/gram of resin.

12. (Currently amended) The compound according to Claim 13 8 which is

wherein is a polystyrene resin, m is from 1 to 100, and the isocyanate content is from about 1 to about 4 mmol/gram of resin.

13. (canceled)

14. (new) The compound according to Claim 8 which is:

wherein is a polystyrene resin, m is from 1 to 100 and the chlorine content is from about 5 to about 7 mmol/gram of resin.